
PANEL SESSIONS

Panel 1: Collection and Distribution of Weather Information—Part 1

Moderator: Dr. Elbert W. (Joe) Friday, Jr., *Director, Board on Atmospheric Sciences and Climate, National Research Council*

Rapporteurs: Col (Select) Dave Smarsh, *Assistant Air Force Deputy Under Secretary of Commerce for Oceans and Atmosphere*

Dr. Wayne Estabrooks, *Chief, Program Liaison Branch, Oceanographer of the Navy*

Mr. James McNitt, *Office of the Federal Coordinator for Meteorology (Science and Technology Corporation)*

Synopsis

Dr. Friday convened the panel session by noting that Panel 1 comprised two parts. The first part would focus on roles and responsibilities for observing, collection, and distribution systems and on free and open access to data/information. Abstracts of the panelists' presentations follow this synopsis.

Following the presentation by the panelists, Dr. Friday invited questions and comments from the floor.

Question from the floor: When the Government owns an observational asset, the data is generally distributed. What should the Government's role be regarding the distribution of data or information it purchases from the private sector?

Response: Panel members responded with several comments:

- The public sector's ability to further distribute data obtained from the private sector hinges on whether the public sector buys the data (in which case it owns the data) or the right to use the data (in which case it uses the data with restrictions).
- In the case of lightning network data, the terms of the agreement are that the NWS cannot redistribute the data. Decision to pay for use of the data rather than to buy the data or build a lightning observing system was based on economics.

Comment from the floor: The issue of the liability of the provider involves data accuracy and fitness for use of the data, and suggests a role for standards or guidelines for data collection and dissemination. Some aircraft are designated "experimental," which serves as a warning that they have not undergone the rigorous certification to which normal aircraft are subject.

Might it be possible to adopt a similar approach for weather data; that is, apply some classification that lets the user know that the data may not meet "normal" standards.

Response: The NAS study just released recommended that “scientific audits” be used to determine fitness for use.

Question from the floor: How many non-traditional observational sources exist?

Comments from the floor:

- The NWS conducted a survey of data sources in January 2001 during which 400 providers of data (associated with 40,000 sites) were identified.
- There is a growing proliferation of automated weather stations. Establishing and using a set of “good use standards” would be useful. The users aren’t in a good position to develop standards.
- Data from these sources is useful if you understand what they are and if siting criteria are used.
- NASA solicited proposals for airborne and satellite based systems for remote sensing. NASA specified that data from these systems would be used for research (at no charge) but that there would be restrictions for other uses.

Response: Panel members responded with several comments:

- There are lots of systems out there, e.g., Doppler radar owned by TV stations. However, no comprehensive inventory exists.
- OFCM is pursuing an inventory with help from the Air force and has identified about 150 surface observation networks.
- A discussion on private sector data sources raises a critical issue. What if a TV station puts a mesonet in and uses the data to operate its own NWP model. The TV station has a right to leverage its investment by gaining market share (e.g., through its Website and improved on-air products).

Question from the Floor: Do users understand the limitations of information that they receive?

Comments from the floor:

- Forecast Systems Laboratory (FSL) uses data from a diverse array of sources, including schools and media. FSL uses an automated QC scheme to flag problems and then follow-up with feedback to the data provider.

- However, it is not sufficient to just QC data. Need to know about the station. A National standard would be useful to document site characteristics, types of instruments, QC routines, equipment maintenance and sensor calibration.
- When you classify a station based on quality you are making a judgement. To be fair you need to visit the site. The NWS has a term for data that is discretionary – “complementary data;” that is, data can be used if the user has the corresponding metadata.

Response: Panel members responded with several comments:

- It is important to implement metadata, which should include information about the processing scheme.
- A major problem is that data is becoming available from secondary sources (sources that modify data). Often the associated metadata is lost in this process and is not available to the user.